

NEOTROPICAL NABIDAE (HETEROPTERA), 3:  
SPECIES OF THE GENUS *ARACHNOCORIS*  
FROM COSTA RICA

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*Abstract.*—*A. panamensis* (Dist.), *A. eberhardi*, n. sp. and *A. setosus*, n. sp. are found in Costa Rica in the webs of pholcid spiders.

Species of the neotropical genus *Arachnocoris* live in spider webs. Nine species were known prior to this study.

In 1985 Dr. R. T. Schuh (American Museum of Natural History, New York) kindly sent me a tube with alcohol preserved specimens of the genus *Arachnocoris* labelled "Costa Rica, Heredia, La Selva—Ca. Pto Viejo, 100 m, in webs of pholcids, III. 1983, W. Eberhard." The material contains 3 species, two of which are new and the third represents a new record for Costa Rica. Holotypes and paratypes of new species are in the American Museum of Natural History, one paratype of each species is retained in the Zoological Institute, Academy of Sciences of the USSR.

KEY TO COSTA RICAN SPECIES OF *ARACHNOCORIS*

1. Hemelytra with a transparent white band near the middle. Abdomen constricted at base, base of segment III white, ventral laterotergites II, IV and V with a small raised ivory area. Hind lobe of pronotum unicolorous. Apex of scutellum highly raised. Middle femora in male strongly thickened. Length 5.2–6.3 mm . . . . . *panamensis* (Dist.)
- Hemelytra without white band near the middle. Abdomen not constricted, base of segment III not white, ventral laterotergites II–VII with a whitish or yellowish spot around the stigmatae, but the area of the spot not raised. Hind lobe of pronotum with a more or less distinct medial yellowish stripe. Apex of scutellum feebly raised. Middle femora in male not thickened, about as thick as the fore femora.
2. Antennal segment I longer than width of head, without bristles. Frons near the clypeus with a long thin curved bristle at each side (often rubbed off). Vertex, pronotum and scutellum without bristles. Ostiolar canal directed obliquely cephalad, forming a tubercle at apex. Extreme apex of corium white. Length 3.9–4.3 mm . . . . . *eberhardi*, n. sp.
- Antennal segment I shorter than width of head, with a thick bristle at the inner side. Frons without bristles. Vertex with 2, fore lobe of pronotum with 6, scutellum with 6, long thick bristles, clearly differing from the short hair cover of pronotum. Ostiolar canal directed obliquely caudad, not forming a tubercle at apex. Corium uniformly black. Length 4.5–4.9 mm . . . . . *setosus*, n. sp.

Larvae can be identified by imaginal characters: in *A. panamensis*, base of abdominal segment III white; in *A. eberhardi* antennal segment I long and hair cover of the body short; in *A. setosus* antennal segment I short and upper surface of body (including abdomen!) with long bristles.

*Arachnocoris panamensis* (Distant, 1893)

Figs. 1-4

*Herdonius* (?) *panamensis* Distant, 1893:419.*Arachnocoris panamensis* Bergroth, 1914:117; Kerzhner, 1986:180.*Arachnocoris albomaculatus* (not Scott, 1881): Bergroth, 1914:117; Myers, 1925:136-146; Harris, 1928:29.

Dr. W. Eberhard collected 2♂♂, 2♀♀ and 1 larva of this species, formerly known from Panama only. Costa Rican specimens are darker and larger than those from Panama (length 6.0-6.3 and 5.2-5.6 mm, respectively).

*Arachnocoris eberhardi*, new species

Figs. 5-7

*Diagnosis.* Related to *A. berytoides* (Uhler) (Grenada) from which it differs in smaller size (length 2.85 mm), coloring of antennae, pronotum and legs, as well in male genitalia. Apparently related also to *A. torquatus* Bergroth (Venezuela), but in the last the head is in greater part yellowish, distance between ocelli equal to distance between ocellus and eye, antennal segment I as long as head, and rostrum, trochanters, base and a subapical ring of femora, apex of tibiae, and tarsi black.

*Description.* Head black, its apical part (including bucculae, antennifers and most of the clypeus) reddish or yellow. Neck black. Eyes reddish, ocelli red. Frons at both sides from the base of clypeus with a long thin bristle, curved at apex to behind (sometimes bristles rubbed off). Dorsal side of head in the fore half covered by short hairs, in the hind half hairless. Head length (without neck) about 0.27-0.30, width 0.50-0.53, width of vertex 0.23-0.26 mm. Distance between ocelli more than two times distance between ocellus and eye. Antennae dark brown, base of segment I and extreme apex of segments II and IV whitish, length of segments (I-IV) 0.67-0.71, 0.95-1.05, 1.20-1.35, 0.95-1.00 mm, length of antennal segment I distinctly more than length or width of head, all segments covered by short hairs, segment I without bristles. Rostrum dirty yellow, reaching to hind coxae, segment I sometimes reddish, apex of segment II, base of segment III and most of segment IV slightly brownish, length of segments (I-IV) 0.20, 0.65, 0.57, 0.34 mm.

Pronotum shining, all three parts clearly separated by transverse furrows. Collar finely, hind lobe strongly punctured, both covered with short hairs. Fore lobe (calli) unpunctured, hairless, except a narrow stripe of short hairs along the middle. Furrow between fore and hind lobes with an impressed point in the middle. Collar yellow. Fore lobe black. Hind lobe blackish brown, more or less distinctly yellow along the middle and at humeri, hind margin white, concave. Length of pronotum along medial line measured from above (not perpendicularly to its surface) 0.79-0.85 mm, including collar 0.1, fore lobe 0.21-0.24, hind lobe 0.49-0.53 mm. Width of pronotum 0.86-0.96 mm. Scutellum of subequal length and width, base and adjacent part of lateral areas black, the remaining part white, apex only slightly raised. Hairs on scutellum thin, most of them longer than those on pronotum.

Corium and clavus shining, semitransparent (except apex of corium), grey or blackish, veins somewhat darker, lateral margin of corium and hypocostal lamina dirty yellowish, apex of corium purplish black, its extreme apex white. Veins of corium

and clavus, lateral margin of corium, and its apex with thin hairs, most of them about twice as long as those on pronotum. Membrane dark grey, often lighter at base, at apex and on the outer corner.

Coxae brown or dark red, with base and apex yellow. Trochanters yellow. Femora brownish yellow, base and two indistinct rings yellow, apex broadly red. Fore and middle femora with 2 rows of short black bristles on ventral side. Tibiae brownish yellow to dirty yellow. Tarsi brown. Claws small, asymmetrical. Length of fore and middle femora and tibiae 1.5–1.6, of hind femora 2–2.3, of hind tibiae 2.6–2.8, of all tarsi 0.5 mm.

Ventral side of prothorax yellow, except a black continuation of the coloration of calli. Ventral side of mesothorax black, acetabulae and hind margin of mesepimeron dirty yellow. Ventral side of metathorax yellow or partly red, medial third black, ostiolar canal directed obliquely cephalad, forming a tubercle at apex. Abdomen not constricted at base, black or dirty red with black apex, ventral laterotergites II–VII with a whitish spot around the stigmatae.

Paramere flat, subquadrangular, with an apical projection on the inner corner, yellowish, semitransparent in the middle, covered by short hairs on the basal half. Aedeagus with 2 separate dark spines, two groups each consisting of 4 dark spines and two groups formed by smaller yellowish spines.

Female without ovipositor.

Length ♂ 3.9, ♀ 4.2–4.3 mm.

*Holotype*. ♂, COSTA RICA, Heredia, La Selva—Ca Pto. Viejo, 100 m, in webs of pholcids, III.1983, W. Eberhard.

*Paratypes*. 3♀, 1 larva, same data as holotype.

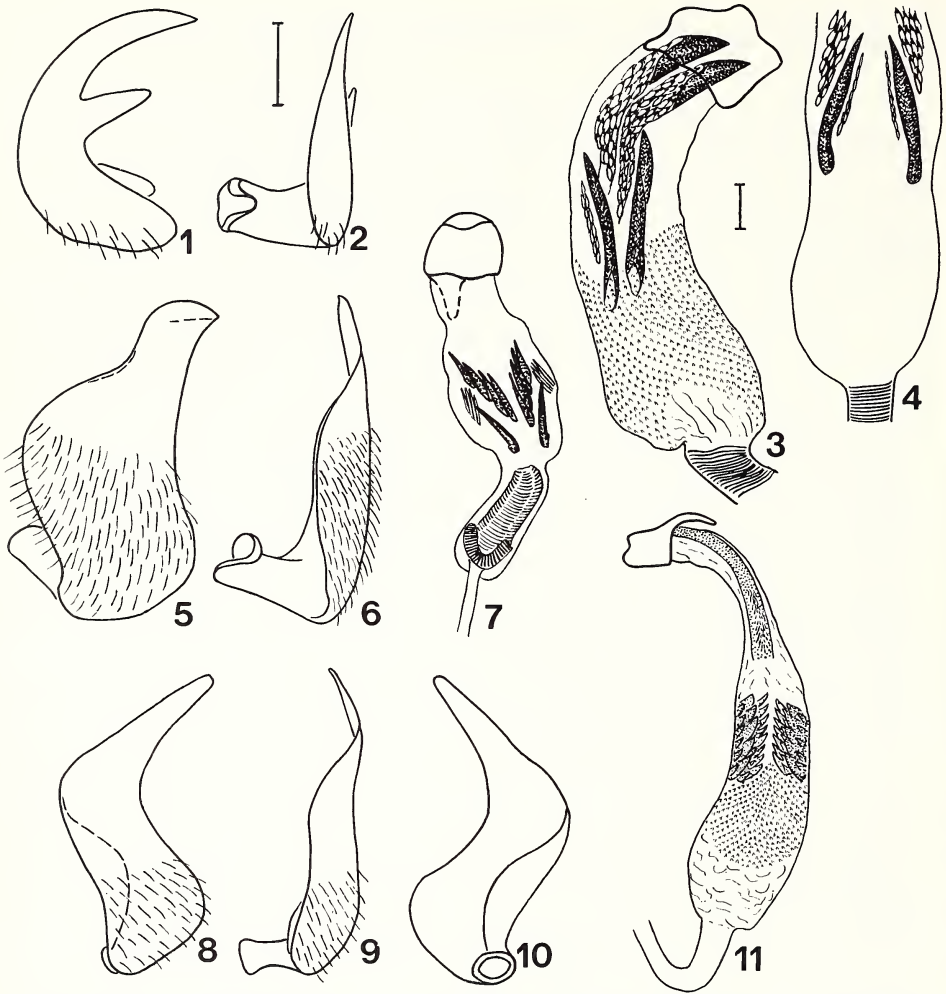
*Etymology*. Named for W. Eberhard.

### **Arachnocoris setosus**, new species

Figs. 8–11

*Diagnosis*. Differs from all known species in uniformly black corium and long stout bristles at vertex, pronotum and scutellum.

*Description*. Head black, its apex (including bucculae, antennifers, apical  $\frac{2}{3}$  to  $\frac{3}{4}$  of clypeus) and ventral side yellow, inner margin of eyes, lateral areas behind eyes and vertex between eyes and ocelli brownish yellow. Neck black, its ventral side yellow. Eyes and ocelli red. Frons without bristles. Vertex with 2 long stout bristles near the eyes. Dorsum of head on the fore half covered by short hairs, in the hind half hairless. Head length (without neck) about 0.36–0.40, width 0.57–0.60, width of vertex 0.27–0.29 mm. Distance between ocelli less than diameter of an ocellus, about half the distance between ocellus and eye. Antennae dark brown to black, base of segment I, extreme base and apex of segment II, extreme base of segment III whitish yellow, a wide ring at segment IV occupying slightly less than a half of its length and placed nearer to base than to apex, length of segments (I–IV) 0.40–0.43, 0.79–0.83, 0.79–0.82, 0.86–0.90 mm, length of antennal segment I subequal to length of head and distinctly less than its width, all segments covered by short hairs, segment I with a stout bristle near the middle of the inner side. Rostrum brown, reaching the hind coxae, segment I and sometimes base of segment II yellowish, length of segments (I–IV) 0.30, 0.50, 0.60, 0.30 mm.



Figs. 1-11. *Arachnocoris*, male genitalia. 1-4. *A. panamensis*, Costa Rica. 1, 2. Paramere. 3, 4. Aedeagus and its basal part. 5-7. *A. eberhardi*, holotype. 5, 6. Paramere. 7. Aedeagus. 8-11. *A. setosus*, holotype. 8-10. Paramere. 11. Aedeagus. Scale lines equal 0.1 mm.

Pronotum shining, collar demarcated from fore lobe by a more or less distinct furrow, but the border between fore and hind lobes less pronounced, without furrow. Collar faintly, hind lobe strongly punctured, both covered by very short hairs. Fore lobe (calli) without longitudinal furrow, with a narrow stripe of short hairs along the midline and with stripes of very short hairs on slightly elevated areas on both sides of the midline, with 6 long stout bristles, 4 being placed near the fore outer corners and two at the hind margin. Collar brownish yellow to brown, fore lobe black, hind lobe brownish black, with a distinct longitudinal yellow stripe, also humeri narrowly yellow, hind margin concave, not differing in color or only slightly lighter than the

remaining part of hind lobe. Length of pronotum along midline measured from above (not perpendicular to its surface) 0.93–1.07, including collar about 0.1, fore lobe 0.26–0.29, hind lobe 0.60–0.70 mm. Width of pronotum 1.07–1.13 mm. Scutellum broader (0.4 mm) than long (0.3 mm), dark brown, its elevated middle part or at least a medial stripe yellow, but the apex dark, not raised or only feebly raised. The surface of scutellum with 6 long bristles, similar to these on pronotum and vertex.

Hemelytra feebly shining, not transparent, corium and clavus black, hypocoastal lamina dirty yellow, membrane black, with a semicircular spot behind the apex of corium and a similar spot at inner margin white. Veins of corium and clavus, lateral margin of corium and its apex with stout hairs, most of them several times longer than the hairs on pronotum.

Coxae dark brown or black. Trochanters brownish. Femora dark brown to black, the fore femora yellowish on the basal half except the extreme base, the middle femora on basal half yellow or with one or two yellow rings, the hind femora with a wide subbasal ring and a narrower ring on the apical half yellow. The apex of hind femora very narrowly red. Fore and middle femora with 2 rows of short black bristles at the ventral side. Tibiae brown, the hind ones narrowly yellow at base. Tarsi black, segment II yellowish. Claws small, asymmetrical. Length of fore and middle femora and tibiae about 1.25, of hind femora 1.5–1.6, of hind tibiae 1.85–2.0, of all tarsi 0.6 mm.

Ventral side of prothorax yellow, except a black continuation of the coloration of calli. Ventral side of mesothorax black, except acetabulae and hind margin of mesepimeron dirty yellow. Ventral side of metathorax yellow, medial third black, ostiolar canal directed obliquely caudad, not forming a tubercle at apex. Abdomen not constricted at base, dark brown to black, ventral laterotergites II–VII with a yellowish spot around the stigmatae.

Paramere narrow, strongly bent, covered by short hairs on the basal half, dirty yellow. Aedeagus without hooks, with numerous small sclerotized formations lying on the basal half on both sides of midline, and on the apical half along the midline.

Female without ovipositor.

Length ♂ 4.5–4.7, ♀ 4.9 mm.

*Holotype*. ♂, COSTA RICA, Heredia, La Selva—Ca Pto. Viejo, 100 m, in webs of pholcids, III.1983, W. Eberhard.

*Paratypes*. 1♂, 1♀, 1 larva same data as holotype.

*Etymology*. Named for bristles on the dorsal surface, from the Latin *setosus*, covered by bristles.

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